REMARKS/ARGUMENTS

Reconsideration of the above identified application is respectfully requested.

In the Office Action dated August 9, 2004, claims 2, 12-15 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 5-9 and 18 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Examiner suggests that claim 5 be amended to recite simply a compound and a pharmaceutically effective amount of a pharmaceutically effective carrier with no reference to anti-tumor. It is suggested that claims 8 and 18 be deleted due to lack of enablement.

The Examiner further indicates that claims 1, 10 and 11 are allowed. Applicants thank the Examiner for the allowance of the claims.

In response to the rejections, Applicants have amended claim 2 to recite the --method for isolating the Annonaceous acetogenins compounds --, instead of the "method for isolating and purifying the Annonaceous acetogenins compounds," and further amend the claim to clarify the invention. Support of the amendment can be found on page 4, lines 10-14. New claims 19-22 are added. New claim 19 is directed to the "method for isolating and purifying the Annonaceous acetogenins compounds, which is essentially an incorporation of all the claim limitations of the original claims 2, and 12-15. As suggested by the Examiner on page 2 of the Office Action, this claim is allowable. Applicants thank the Examiner for the suggestion.

As a result of the addition of new claim 19, claims 12-15 and 18 are cancelled. In addition, claims 16-17 are amended to depend upon new claim 19, and new claims 21-22 are added to depend upon claims 16-17, respectfully. New claims 21-22 are supported by the specification on page 4, lines 20-24, and page 5, lines 1-2. No new matter has been introduced.

With respect to the rejections under enablement alleged by the Examiner, Applicants have amended claim 5 to remove the term in reference to anti-tumor. Applicants have further amended claim 6-7 to recite that the Annonaceous acetogenins compounds have cytotoxic activity in human cancer cells, especially in human hepatoma cancer cells, which is supported by the specification on page 18, lines 12-14, and Table 6. No new matter has been introduced.

With respect to the method of use claim 9, Applicants have made minor amendment to further clarify the claim, and respectfully traverse the enablement rejection for the reasons set forth below.

Claim Rejections Under 35 U.S.C. §112, first paragraph

Claims 5-9 and 18 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Examiner argues that "there is no absolute predictability and no established correlation between in vitro activity and the treatment of tumors as the in vitro data is not a reliable predictor for success even in view of the seemingly high level of skill in the art." (emphasis in original). (See Office Action at 4).

With respect to claims 6-7, Applicants have amended the claims to recite that the muricins A-G are cytotoxic to human cancer cells, which is clearly supported by Applicants' experimental data and therefore enabling. With respect to claim 18, the claim is cancelled so that the issue is moot.

Applicants respectfully traverse the rejections of claims 8-9, which are directed to the method of use claims for treating patients with tumor (claim 8) or hepatoma (claim 9) for the following reasons:

"It is well settled that the disclosure of an application embraces not only what is expressly set forth in words or drawings, but what would be understood by persons skilled in the art." Webster Loom Co. v. Higgins et al., 105 U.S. 580, 586. Under Section 112, the knowledge of one of ordinary skill in the art includes not only basic knowledge of the particular art but also the knowledge of where to search out information. In fact, the Court of Customs and Patent Appeals, in In re Howarth, 654 F.2d 103, 105 (CCPA, 1981), adopted such a standard, "[a]n inventor need not, however, explain every detail since he is speaking to those skilled in the art. What is conventional knowledge will be read into the disclosure." Also, "the applicant may begin at the point where his invention begins, and describe what he has made that is new and what it replaces of the old. That which is common and well known is as if it were written out in the patent and delineated in the drawings." Id., at 106.

Thus, under the prevailing law, the enablement disclosure includes not only the disclosure in the specification but also the relevant information which is accessible to the public.

In the present case, Applicants have provided experimental data to demonstrate that the muricins A-G isolated and purified by them have cytotoxic effects on human cancer cell lines (See e.g., Table 6). Additionally, on page 19, lines 3-7, page 22, lines 1-24, and page 23, lines 1 and 9-10, Applicants have provided references relating to the structure-activity relationships ("SAR") of the class of Annonaceous acetogenins, which contains four chemical portions: the hydroxylated THF ring moiety, the α, ß-unsaturated γ-lactone ring moiety, and the spacer moiety linking the two rings, and the alkyl side chain attached to THF rings which had a diol group and ended with the terminal methyl. Although Applicants' muricins are chemically and physically

different from the Annonaceous acetogenins found in other species, they share the common denominator of the four chemical portions.

In addition to the above information provided by Applicants, it is known in the field that the are naturally occurring polyketide-derived fatty acids, which possess anti-neoplastic or anti-tumor properties. (See e.g., U.S. Pat. No. 6,150,540; See also U.S. Pat. No. 5,739,358). In fact, Applicants would like to draw the attention of the Examiner that in the prior art cited by the Examiner in the Office Action dated September 24, 2002 (i.e., U.S. Pat. Nos. 6,242,483 and 5,955,497), no in vivo study has been provided by the inventors, yet the PTO allows the inventors' claims of "anti-tumor composition" and "method for treating a patient with a tumor" based purely on the inventors' in vitro studies using human cancer cell lines. (See e.g., claims 2 and 5 of U.S. Pat No. 5,955,497). That is because the inventors' in vitro studies, in combination with the information readily available in the public, have provided sufficient enablement disclosure to allow one of ordinary skill in the art to make and use the invention in a patient.

Thus, Applicants respectfully submit that they have provided enabling disclosure for using the claimed compounds for treatment of tumor. Applicants respectfully request the withdrawal of these rejections.

In view of the foregoing, the objections and rejections have been overcome and the claims are in condition for allowance, early notice of which is requested. Should the application not be passed for issuance, the examiner is requested to contact the applicant's attorney to resolve the problem.

Respectfully submitted,

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